

BAE -- 10/626,550
Client/Matter: 040021-0305239

REMARKS

Claims 1 and 5-8 are currently pending. By this Amendment, claim 1 is amended. Support for the amendment to claim 1 may be found in the specification on page 4, lines 12-15. No new matter is added. Reconsideration in view of the above-outlined amendments and the following remarks is respectfully requested.

Entry of the Amendment is appropriate under 37 C.F.R. § 1.116 as the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issues that would require further consideration and/or search; (c) does not add any claims without canceling a corresponding number of claims; and (d) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented as it is in response to arguments raised in the Final Rejection. Entry of the Amendment is thus respectfully submitted.

Claims 1 and 5-8 were rejected under 35 USC § 102(b) under U.S. Patent No. 6,387,821 to Aoki. This rejection is respectfully traversed.

Applicant respectfully submits that Aoki fails to disclose the method set forth in amended claim 1. First, Aoki does not disclose forming a low temperature oxide as an insulating layer on the semiconductor substrate including the bottom metal pattern. Instead, Aoki discloses the use of an HSC film. HSC is not a low temperature oxide. It is well established that HSC is a flowable oxide, which is basically a ceramic polymer. Applicant respectfully submits that a flowable oxide is not a low temperature oxide. The claimed low temperature oxide is formed at the temperature of 150~500 C°. In contrast, Aoki deposits the HSC film then performs a stepped heat treating process (i.e., 150 C°, 200 C° and 350 C°) followed by an additional heat treatment step at 400 C° to obtain a reflow characteristic and a substantially planar upper surface. Second, Aoki does not disclose forming an unfinished via hole by selectively removing the low temperature oxide for a prescribed thickness using the first photoresist pattern as a mask whereby the thickness of the low temperature oxide remaining inside the via hole is less than a thickness of an upper part of a damascene contact. This feature is not disclosed or suggested by Aoki. The Office Action recognizes this distinction by cited that the thickness in Aoki is equal to the thickness of the upper part.

Accordingly, applicant respectfully submits that Aoki does not disclose, teach or suggest the subject matter of amended claim 1. Claim 1 is allowable over Aoki. Claims 5-8 depend from claim 1 and are allowable over Aoki for at least the same reasons. Reconsideration and withdrawal of the rejection are respectfully requested.

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Applicant respectfully submit that the claims define subject matter that is patentable over the prior art cited of record. It is respectfully submitted that the application is in condition for allowance. Should further issues require resolution prior to allowance, the Examiner is requested to telephone applicant's undersigned attorney at the number below. Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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